

## REMARKS

Applicant thanks the examiner for the careful examination of the application to this point, and respectfully submits that the application, as amended, is allowable.

Regarding the objection to the drawings, applicants propose amending Figures 1, 3 and 5-7, as indicated in red ink, to properly cross-hatch the sectioned insulating materials. A set of corrected drawings is enclosed herewith, and the Examiner's approval of the proposed drawing changes is requested.

With regard to the objection to the specification, the specification has been amended to delete all references to specific claims.

Regarding the objections to claims 4-11, the claims have been appropriately corrected to eliminate all improper multiple dependencies. Further consideration on the merits of these claims is hereby requested.

Regarding the objection to claims 1 and 3, claim 1 has been amended to include the limitations of claim 3, and claim 3 has been deleted. The amendments to claim 1 also provide all features therein with a proper antecedent basis.

Regarding the objection to claim 2 under 35 U.S.C. §112, second paragraph, applicant has amended claim 2 to comply with §112, second paragraph, by eliminating any narrow language that follows broad language. Specifically, the phrase "and especially an elastomeric material" was deleted from claim 2.

With regard to the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,732,390 to Novak, applicant respectfully submits that Novak fails to teach every feature of the present invention. Specifically, Novak does not teach a diaphragm that "is prestressed in a transition area between the switching element and the housing, thus resiliently pressing the switching element against the contact surfaces", as claimed in claim 1.

(Identification numbers of claim 1 omitted). Instead, Novak discloses an electromechanical switch that includes an elastic housing that encloses an electrically conductive, floating contact and a fixed contact. An elastic material fills the housing, thereby “resiliently restraining the floating contact above and out of electrical contact with the fixed contact”. (See col. 1, lines 25-28) The floating contact is the operable switching member of Novak that closes the circuit when an externally applied force compresses the elastic housing, forcing the floating contact into electrical contact with the fixed contact. When the externally applied force is removed, the elastic housing forces the floating contact to separate from the fixed contact, thus opening the electrical circuit.

In contrast, the electromechanical switch according to the present invention includes an elastic diaphragm abutting a housing, the diaphragm enclosing an area of a switching element and a region containing contact surfaces. The diaphragm is “prestressed in a transition area between the switching element and the housing, resiliently pressing the switching element against the contact surfaces”, as claimed in claim 1. Thus, the diaphragm of the present invention presses the switching element against the contacting surfaces in the absence of an externally applied force, while the elastic housing of Novak acts to separate the switching element from the contacting surfaces in the absence of an externally applied force. Accordingly, applicant submits that the present invention is not anticipated by Novak.

With regard to the rejection of claim 2 under 35 U.S.C. §102(b) as being anticipated by Novak, applicant respectfully submits that the present invention fails to teach every feature of claim 2, as amended. In addition to the features in claim 1 not taught by Novak as discussed above, Novak does not teach a switch wherein “the elastic diaphragm (5) comprises a thermoplastic”, as claimed in claim 2. Although, Novak suggests that the use of an elastic material to suspend the floating contact, Novak is silent on the types of elastic materials suitable

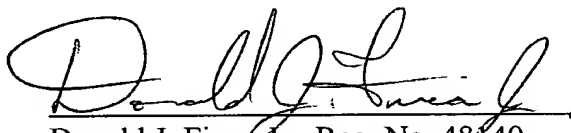
for such an application, including thermoplastics. Thus, applicant respectfully submits that claim 2 is allowable for the limitations set forth therein and for the reasons for the claim from which it depends.

In light of the foregoing, it is submitted that the application is in a condition for allowance and notice to that effect is hereby requested.

If there are any fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 33966.

Respectfully submitted,

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MARKED UP COPY SHOWING CHANGES

IN THE SPECIFICATION:

The paragraph beginning on page 1, line 2, beginning “This invention relates to an electromechanical...”, has been amended in the following manner:

This invention relates to an electromechanical switch [as conceptually specified in claim 1].

The paragraph beginning on page 2, line 16, beginning “The invention meets this objective....”, has been amended in the following manner:

The invention meets this objective by means of an electrical switch [with the characteristic features per claim 1] having novel features as described herein.

IN THE CLAIMS:

Claims 1, 2 and 4-10 were amended in the following manner:

1           1. (Amended) An [Electromechanical] electromechanical switch incorporating  
2           in its switch housing at least one electrically conductive switching element (1) with  
3           associated electrically conductive contact surfaces (2), [characterized in that the] wherein  
4           an area of the switching element (1) that faces away from the contact surfaces is at least  
5           partly enclosed by an elastic diaphragm (5) which also encloses at least [the] a region  
6           containing the contact surfaces (2) associated with the switching element (1) and tightly  
7           butts against the switch housing (4; 6) wherein said diaphragm (5) is prestressed in a  
8           transition area between the switching element (1) and the housing (4; 6), thus resiliently  
9           pressing the switching element (1) against the contact surfaces (2).

1           2. (Amended) The [Switch as in] switch according to claim 1, [characterized in  
2           that] wherein the elastic diaphragm (5) [consists of] comprises a thermoplastic [and  
3           especially an elastomeric material].

1           4. (Amended) The [Switch as in one of the claims 1 to 3] switch according to  
2           claim 1, [characterized in that] wherein the switch housing (4; 6) consists of two sections,  
3           with a base plate (4) containing the contact surfaces (2) [,] and a cover (6) with an  
4           opening (6') through which protrudes a part of the switching element (1) with a  
5           diaphragm (5), [which] wherein said two housing sections (4; 6) are preferably connected  
6           in self-locking fashion by clamping or welding.

1           5. (Amended) The [Switch as in one of the claims 1 to 4] switch according to  
2 claim 1, [characterized in that] wherein the switching element (1) is pin-shaped and has  
3 a round or oval cross section while its end (1'), which makes contact with the contact  
4 surfaces (2) is preferably rounded into a convex tip.

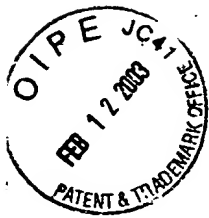
1           6. (Amended) The [Switch as in one of the claims 1 to 5] switch according to  
2 claim 1, [characterized in that] wherein, in the area where it rests against the switching  
3 element (1) and/or in the transitional area between the switching element (1) and its  
4 connection to the switch housing (4; 6), the diaphragm (5) is provided on its inside and/or  
5 outside with one or several notches (7).

1           7. (Amended) The [Switch as in one of the claims 1 to 6] switch according to  
2 claim 1, [characterized in that] wherein the switching element (1) [consists of] comprises  
3 a metal.

1           8. (Amended) The [Switch as in one of the claims 1 to 7] switch according to  
2 claim 1, [characterized in that] wherein three [and preferably] or four contact surfaces (2)  
3 are associated with one switching element (1).

1           9. (Amended) The [Switch as in one of the claims 1 to 8] switch according to  
2 claim 1, [characterized in that] wherein the contact surfaces (2) [are constituted of]  
3 comprise contact pins (3) whose ends (2) facing the switching element (1) are  
4 hemispherical or mushroom-shaped.

1            10. (Amended) The [Switch as in one of the claims 1 to 9] switch according to  
2            claim 1, [characterized in that] wherein the switch housing <sup>comprises</sup> for the switch-housing sections  
3            (4; 6) [consist of] comprise a 2-component injection-molded plastic material.



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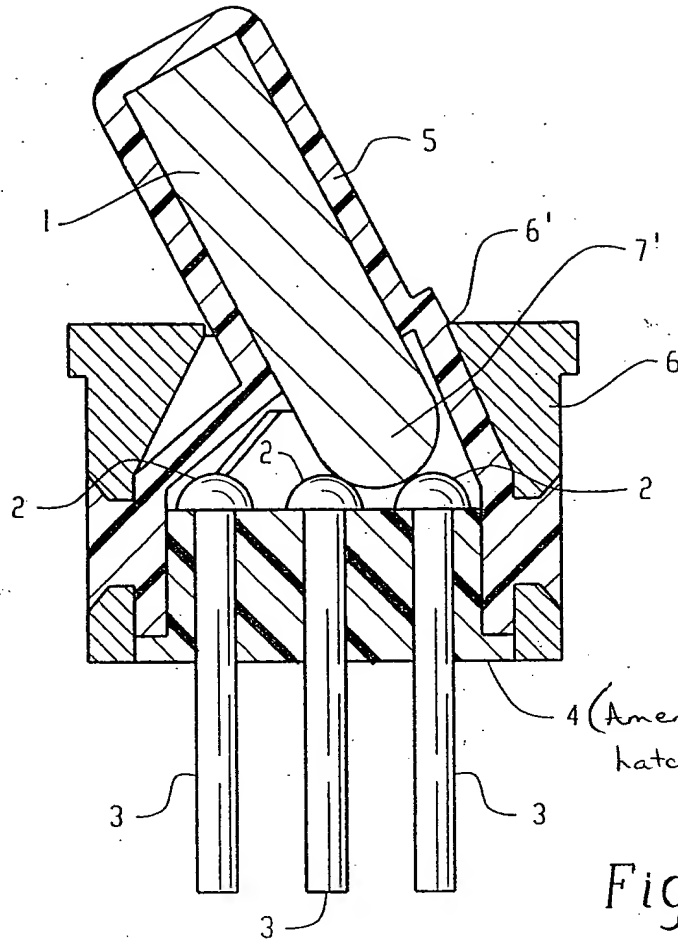


Fig. 1

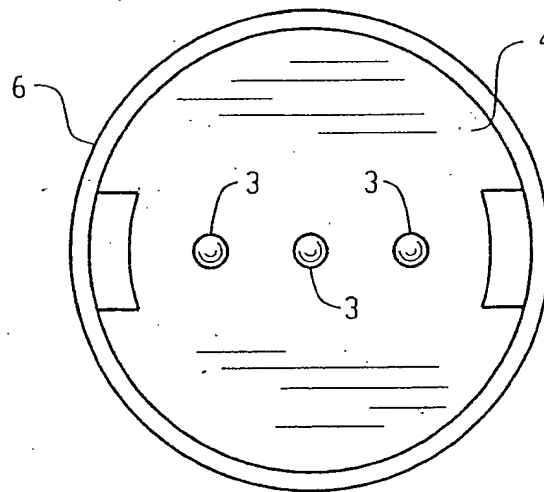
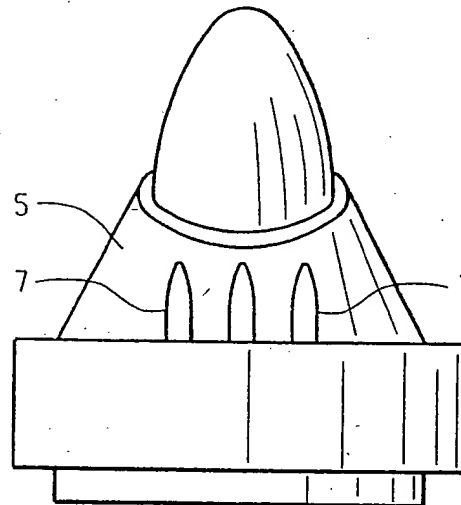
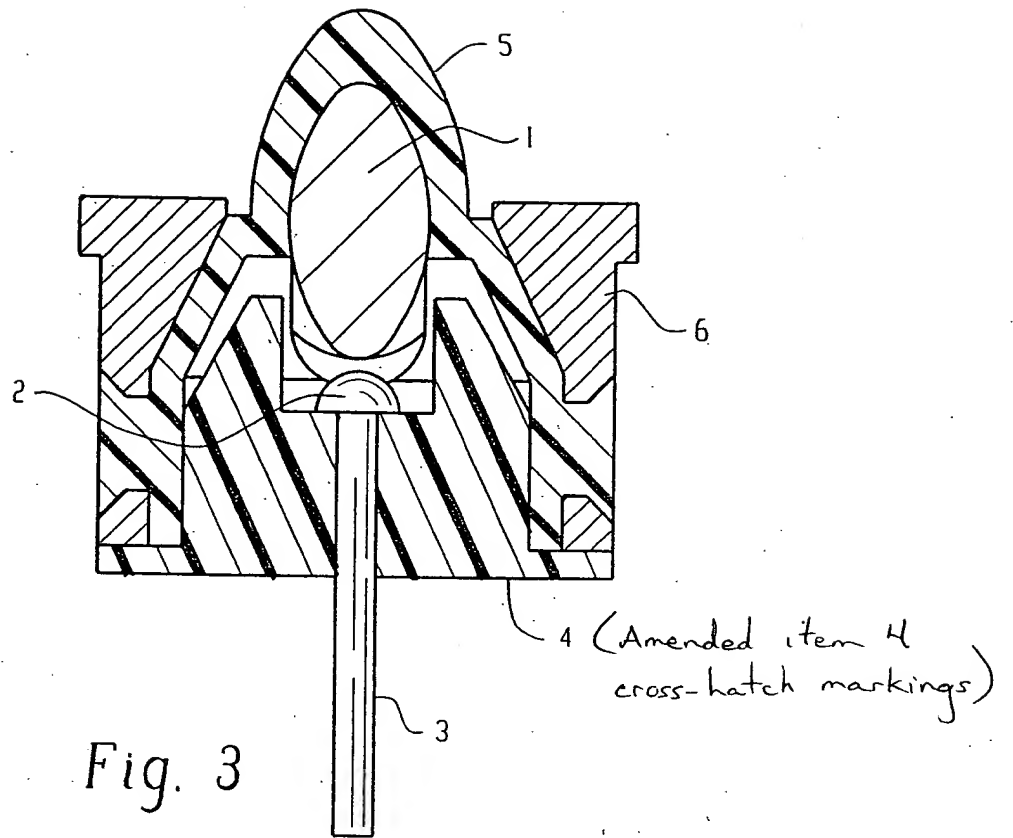


Fig. 2

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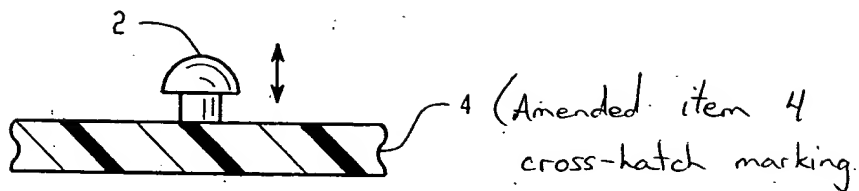


Fig. 5

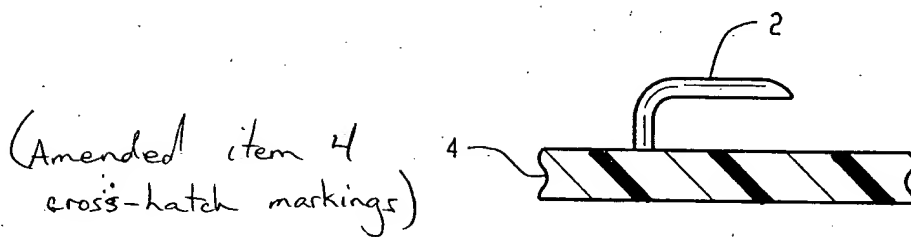


Fig. 6

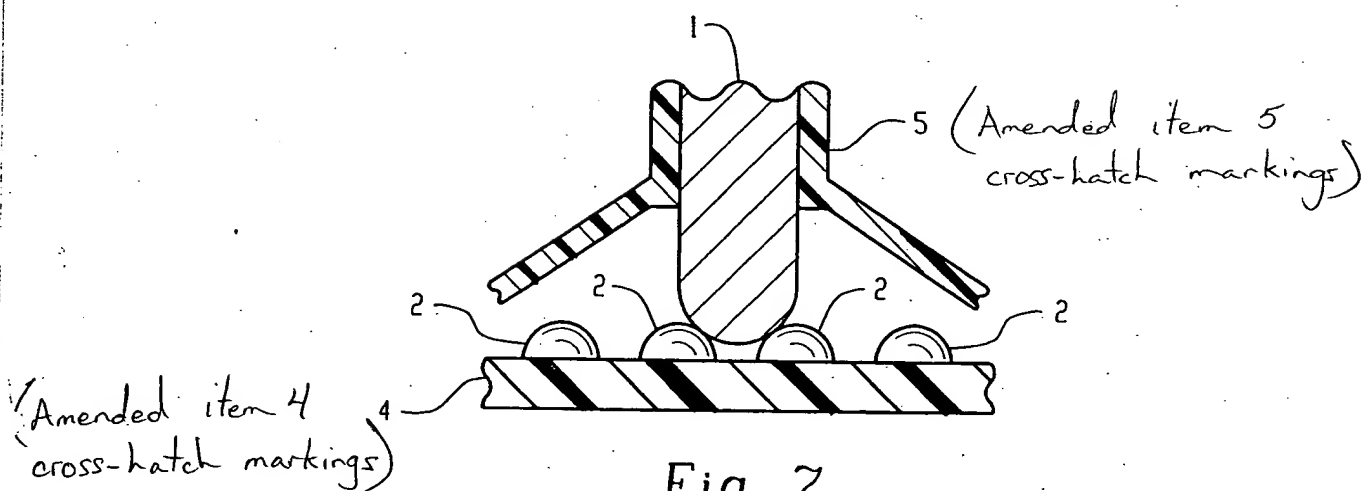


Fig. 7